

Double-Intersection
Warren Truss Bridge
Spanning Blackledge River
Colchester
New London County
Connecticut

HAER CT-7

HAER
CONN,
6-COLCH,
4-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Department of the Interior
Washington, D.C. 20240

HISTORIC AMERICAN ENGINEERING RECORD

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DOUBLE-INTERSECTION WARREN TRUSS BRIDGE

CT-7

Location: On abandoned New York, New Haven and
Hartford Railroad, .2 mile south of
River Rd., Colchester, Conn.

Date of Construction: C. 1907

Present Owner: State of Connecticut
Dept. of Transportation
Office of Mass Transit Planning
24 Wolcott Hill Rd.,
Wethersfield, Conn.
Attention: Mr. Harold Isham

Present Use: Railroad is abandoned, tracks lifted.
Span is sealed off, prohibiting
vehicular traffic over bridge.

Significance: Typical of truss bridges at river
crossings C. 1907, particularly as
constructed by the New York, New Haven
and Hartford Railroad in its upgrading
of the then 40 year old line.
Unlike similar bridges, on the line,
however, this one includes the remains
of the earlier (C. 1870) bridge
abutments. These stand inside the 1907
abutments.

Compiled By: Jeffrey O. Borne
Environmental Specialist
Cahn Engineers, Inc.

Transmitted By Gary R. Arabak, 1983.

The New Haven, Middletown and Willimantic Railroad was organized in 1868. By 1871, it was operating trains over twenty-two miles of track between New Haven and Middletown. In 1872, plans to complete the line from Middletown to Willimantic were submitted to the Board of Railroad Commissioners. After modifications, plans were completed and the line was constructed. The first trains began running in August, 1873, at 18 miles per hour.

Eventually, speeds increased and loads became heavier, and alterations had to be made to the line to facilitate these heavier and faster trains.

Historical research conducted by Dr. Frederick Warner of the Connecticut Archaeological Survey, Inc., reveals that in 1876 the New Haven to Willimantic line was deeded to the Boston and New York Airline Company, which in turn deeded the facility to the New Haven Railroad in 1907. It was about this time that major improvements, including the Warren Truss bridge, were made to the railway.

Decreased industrial activity and more effective trucking resulted in economic conditions which brought about abandoning the railroad in the early 1960's. The railroad was sold to the Connecticut Department of Transportation several years later.

The bridge itself is a riveted steel, double intersection, Warren deck truss with substruts, founded on brown-stone abutments. The 108 ft. span is 32 ft. above the Blackledge River from the bottom chord. The granite stone abutments which supported the earlier (C. 1870) bridge are five feet lower than the supporting ledges of the existing (C. 1907) abutments.

The following discussion is taken from Dr. Warner's letter report in a March 13, 1978 letter to Mr. John Shannahan, State Historic Preservation Officer, Connecticut Historical Commission:

"... The Warren truss, patented in 1848, is one of the two basic truss forms of the nineteenth century, and a type still being used today. Basically triangular in outline form, Warren trusses were sometimes strengthened by increasing the number of diagonal members. One of the ways this is done is demonstrated by the Blackledge span, where two triangular systems are combined to form a double intersection truss. Although full length vertical members are frequently added to stiffen the entire structure, the bridge in question uses only sub-struts, or verticals from the top chord to the cross points of the diagonals."